

DEVICE, ACCESSORY CHART, AND INSTALLATION RESPONSIBILITIES FOR COMPLETE OPERATION OF THE SKYTRON LINX 300 INTEGRATION CONTROL SYSTEM. REFER TO EP SERIES POWER DRAWINGS AND EY SERIES AUXILIARY SYSTEMS NETWORK DRAWINGS FOR ADDITIONAL INFORMATION.

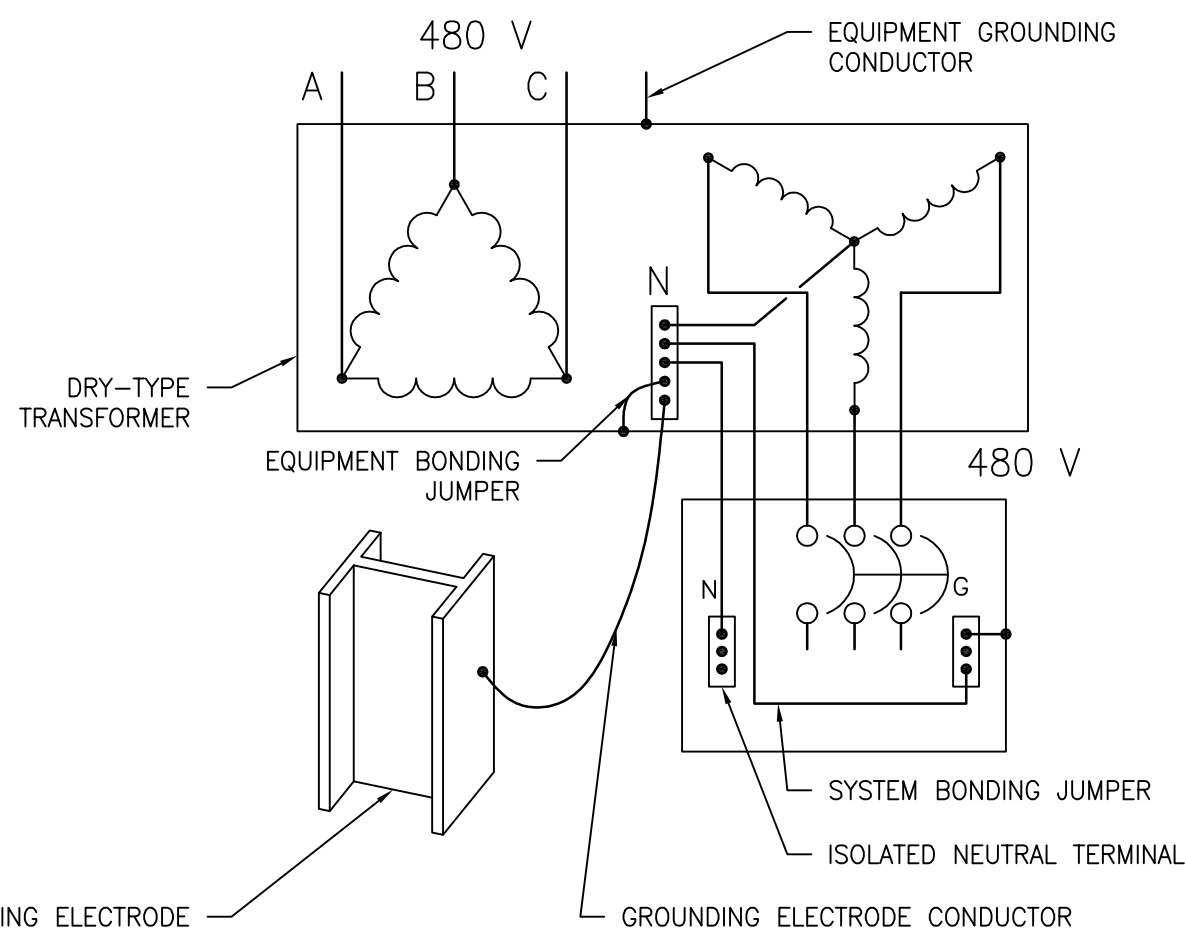
ITEM NUMBER	DESCRIPTION	CONDUIT SIZE	DESCRIPTION	TERMINATION	LOCATION OF JUNCTION BOX	TO	INSTALLATION RESPONSABILITIES	REMARKS
1	SKYTRON POWER RACK (LINX 300 INTEGRATION CONTROL SYSTEM)						C D E	SINGLE 18U WALL MOUNTED RACK.
2	TWO (2) 120 VAC/20A DEDICATED CIRCUITS	TWO (2) 1"		AS REQUIRED	AS DIRECTED BY SKYTRON.	RECEPTACLE PANEL AS INDICATED IN EP DRAWINGS	A B	ONE CIRCUIT IS DEDICATED TO THE COMPONENT RACK AND THE SECOND CIRCUIT IS DEDICATED TO THE MONITOR SUPPLIES. REFER TO EP SERIES DRAWINGS FOR EXACT CIRCUIT NUMBER AND PANEL SOURCE.
3	TWO (2) DEDICATED QUADUPLEX RECEPTACLES	TWO (2) 1"		TWO (2) 12"x12"x4" JUNCTION BOXES.	TWO (2) 12" SQ. X 4" DEEP JUNCTION BOXES.	SKYTRON POWER RACK	C E	JUNCTION BOXES TO BE ROUGHED IN LEFT-HAND SWING SKYTRON ENCLOSURE.
4	THREE (3) DATA OUTLETS.	THREE (2) 1"		AS REQUIRED	AS DIRECTED BY SKYTRON.	HOSPITAL TELECOM NETWORK	A B	DATA OUTLETS DEDICATED TO SKYTRON POWER INTEGRATION SYSTEM. REFER TO DETAIL 8/E5.01 FOR DATA OUTLET CONFIGURATION.
5	GROUND LEAD	1"	MINIMUM 8 AWG COOPER GROUND WIRE	AS REQUIRED PER NEC 647.6(B)	HOSPITAL GROUND	SKYTRON POWER RACK	A C E	REFER TO ARTICLE NEC 647.6(B). EQUIPMENT SHALL BE GROUNDED BY MEANS OF AN EQUIPMENT GROUNDING CONDUCTOR TO AN EQUIPMENT GROUNDING BUS PROMINENTLY MARKED " TECHNICAL EQUIPMENT GROUND" IN THE ORIGINALLY BRANCH CIRCUIT PANEL BOARD.
6	EXTERNAL COMPUTER	1"	PC VIDEO	4" SQ. X 3.5" DEEP BOX W/1 GANG P-RING	18" ABOVE FINISH FLOOR.	SKYTRON POWER RACK	A C D E	CONTRACTOR AND SKYTRON TO COORDINATE WITH ARCHITECT THE EXACT LOCATION OF THE EXTERNAL COMPUTER IN THE DOCUMENTATION DESK.
7	DATA OUTLETS.	1" PER EACH DATA OUTLET		AS REQUIRED	18" ABOVE FINISH FLOOR.	HOSPITAL TELECOM NETWORK	A B	DATA OUTLETS DEDICATED TO SKYTRON POWER INTEGRATION SYSTEM AND DOCUMENTATION STATION COMPUTERS . REFER TO DETAIL 8/E5.01 FOR DATA OUTLET CONFIGURATION AND EY SERIES DRAWINGS FOR EXACT LOCATION.
8	POWER GROUND MODULE				18" ABOVE FINISH FLOOR.	RECEPTACLE PANEL AS INDICATED IN EP DRAWINGS	A B	POWER GROUND MODULE DEDICATED TO SKYTRON POWER INTEGRATION SYSTEM AND DOCUMENTATION STATION COMPUTERS . REFER TO DETAIL 4A/E5.06 FOR CONFIGURATION AND EP SERIES DRAWINGS FOR EXACT LOCATION.
9	TOUCH PANEL	1"	TOUCH PANEL KEYBOARD, MOUSE	4" SQ. X 3.5" DEEP BOX W/1 GANG P-RING	60" ABOVE FINISH FLOOR.	SKYTRON POWER RACK	A C D E	
10	DATA OUTLET.	1"		AS REQUIRED	60" ABOVE FINISH FLOOR.	HOSPITAL TELECOM NETWORK	A B	DATA OUTLET DEDICATED TO SKYTRON POWER INTEGRATION SYSTEM . REFER TO DETAIL 8/E5.01 FOR DATA OUTLET CONFIGURATION AND EY SERIES DRAWINGS FOR EXACT LOCATION.
11	POWER GROUND MODULE				60" ABOVE FINISH FLOOR.	RECEPTACLE PANEL AS INDICATED IN EP DRAWINGS	A B	POWER GROUND MODULE DEDICATED TO SKYTRON POWER INTEGRATION SYSTEM. REFER TO DETAIL 4B/E5.06 FOR CONFIGURATION AND EP SERIES DRAWINGS FOR EXACT LOCATION.
12	SKYTRON LIGHT CAMERA CONTROL	1"	LIGHT CAM VIDEO TO RACK	4" SQ. X 3.5" DEEP BOX W/1 GANG P-RING	DOCUMENTATION STATION DESK.	SKYTRON POWER RACK	A C D E	
13	HP NETWORK PRINTER	1"	HP NETWORK PRINTER	4" SQ. X 2" DEEP BOX W/1 GANG P-RING	DOCUMENTATION STATION DESK.	SKYTRON POWER RACK	A C D E	
14	CAMERA MOUNTED IN TRIPLE RADIAL ARM.	2"	CAMERA	4" SQ. X 3.5" DEEP BOX W/1 GANG P-RING	ABOVE CEILING.	SKYTRON POWER RACK	A C D E	REFER TO DETAIL 3/E5.07 FOR POWER AND DATA CONFIGURATION OF TRIPLE RADIAL ARM WITH ONE SURGICAL LIGHTHEAD. FUTURE CONNECTION WILL BE USED IN ORDER TO PLACE A HD VIDEO CAMERA INTEGRATED WITH THE EXISTING DISPLAY SURGICAL HEADLIGHTS ARM. SKYTRON TO COIL SIGNAL AND WIRING CABLES AS REQUIRED.
15	MONITOR DISPLAY MOUNTED IN 360 D POSITIONING WITH VST MONITOR AND 2 ADJUSTABLE SHELVES	1"	SURGICAL BOOM MONITOR DISPLAY	4" SQ. X 3.5" DEEP BOX W/1 GANG P-RING	ABOVE CEILING.	SKYTRON POWER RACK	A C D E	REFER TO DETAIL 3/E5.07 FOR POWER AND DATA CONFIGURATION OF 360 D POSITIONING WITH VST MONITOR AND 2 ADJUSTABLE SHELVES. SKYTRON TO PROVIDE WIRING AND SIGNAL CABLES IN ORDER TO INTEGRATE THE MONITOR MOUNTED IN THE SURGICAL BOOM TO THE SKYTRON POWER RACK.

1 SKYTRON INTEGRATION WIRING DIAGRAM
TYPICAL FOR CYSTO OPERATING ROOM NO. 2
SCALE: NONE

A	EMPTY CONDUITS, TERMINATION AND JUNCTION BOXES MUST BE SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR.
B	WIRING MUST BE SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACT.
C	WIRING MUST BE SUPPLIED AND INSTALLED UNDER SEPARATE CONTRACT.
D	SIGNAL CABLE AND WIRING MUST BE SUPPLIED AND INSTALLED UNDER SEPARATE CONTRACT.
E	EQUIPMENT MUST BE SUPPLIED AND INSTALLED UNDER SEPARATE CONTRACT.

100% CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

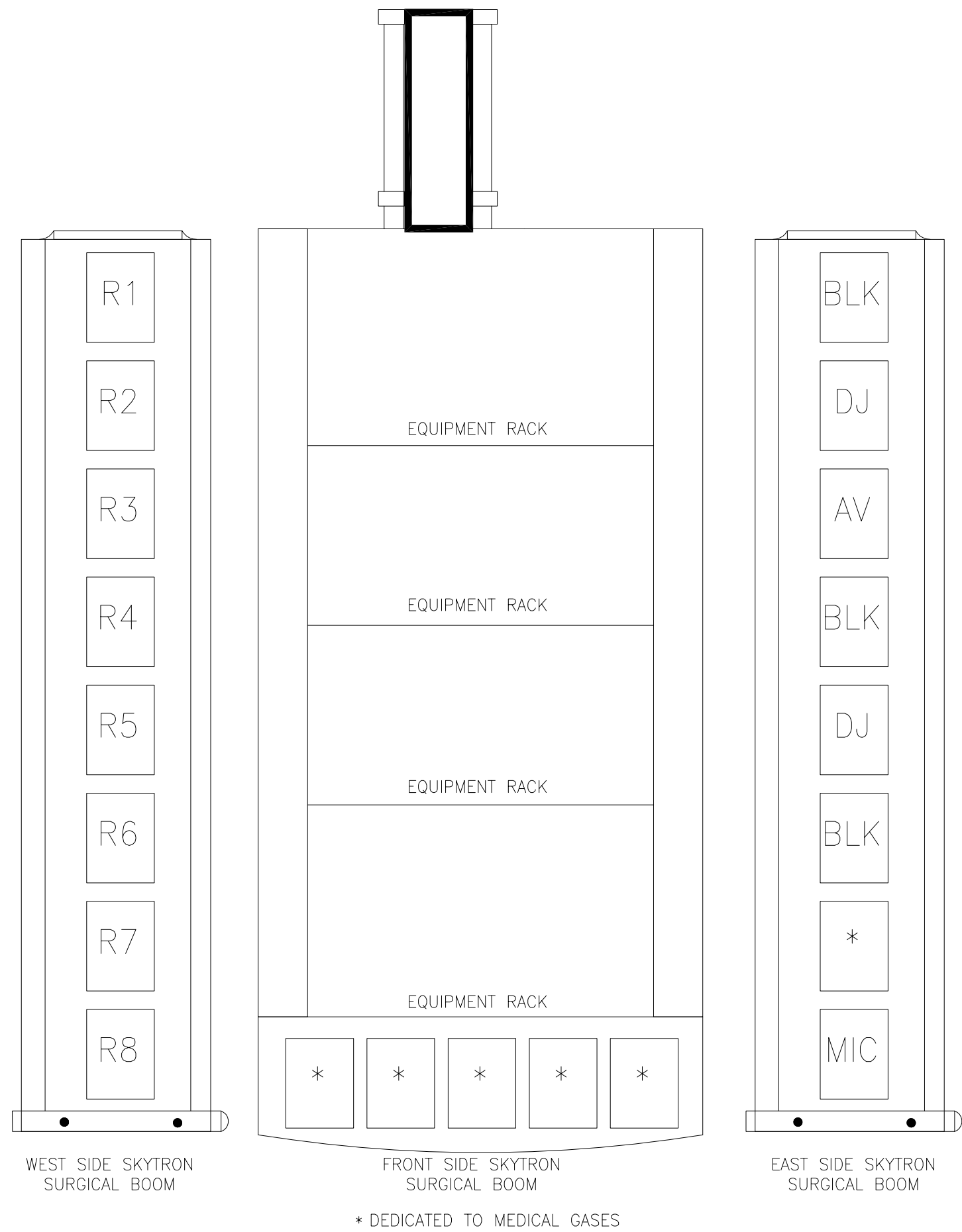
CONSULTANTS:			MILLER-REMICK LLC PROFESSIONAL ENGINEER			ARCHITECT / ENGINEERS:			Drawing Title ELECTRICAL O.R. INTEGRATION SYSTEM DETAIL			Project Title RENOVATE SURGICAL SERVICE & UPGRADE OPERATING ROOMS			Project Number 581-13-101			Office of Construction and Facilities Management Department of Veterans Affairs					
									Approved: Medical Center Director			Location HUNTINGTON, WV			Building Number 1S								
NO. DESCRIPTION DATE												Date 10.31.2014			Checked MC						Drawn DR		
																		Drawing Number E5.12			Dwg. 145 of 178		



NOTE:
1. IF A SEPARATELY DERIVED SYSTEM IS REQUIRED TO BE GROUNDED, THE CONDUCTOR TO BE GROUNDED IS ALLOWED TO BE CONNECTED TO THE GROUNDING ELECTRODE SYSTEM AT ANY LOCATION BETWEEN THE SOURCE TERMINALS (TRANSFORMER, GENERATOR, ETC.) & THE 1ST DISCONNECTING MEANS OR OVER-CURRENT DEVICE. THE LOCATION OF THE GROUNDING ELECTRODE CONDUCTOR CONNECTION TO THE GROUNDED CONDUCTOR MUST BE AT THE POINT AT WHICH THE BONDING JUMPER IS CONNECTED TO THE GROUNDED CONDUCTOR. BY ESTABLISHING A COMMON POINT OF CONNECTION, NORMAL NEUTRAL CURRENT WILL BE CARRIED ONLY ON THE SYSTEM GROUNDED CONDUCTOR. METAL RACEWAYS, PIPING SYSTEMS, & STRUCTURAL STEEL MUST NOT PROVIDE A PARALLEL CIRCUIT FOR NEUTRAL CURRENT.

GROUNDING ELECTRODE CONDUCTOR, SINGLE SEPARATELY DERIVED SYSTEM CONNECTION

SCALE: N.T.S.



FRONT VIEW

SKYTRON EQUIPMENT CARRIER WITH 4 ADJUSTABLE EQUIPMENT SHELVES TO BE RELOCATED TO NEW OR

No. 6 3B-136.

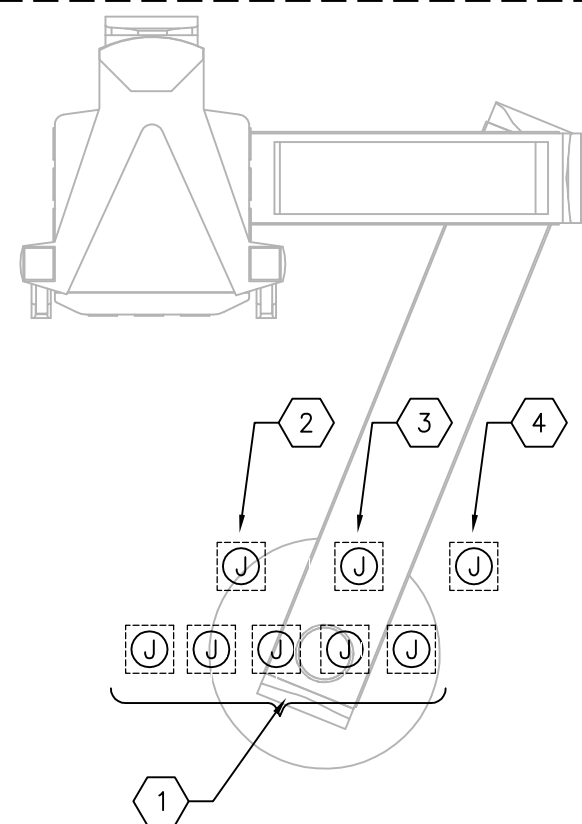
SCALE: SCHEMATIC

DEVICE AND ACCESSORY CHART POSITION FOR SKYTRON 360 D SURGICAL BOOM WITH VST MONITOR AND 4 ADJUSTABLE EQUIPMENT SHELVES				
BOOM SIDE	DESCRIPTION	CIRCUIT NUMBER	PANEL NAME	REMARKS
R1	DUPLEX RECEPTACLE - RED HOSPITAL GRADE 20 AMP	DEDICATED (1)	IPU-OR#-B	*# INDICATES OPERATING ROOM NUMBER. (I.E. OR1, OR2, ETC.)
R2	DUPLEX RECEPTACLE - RED HOSPITAL GRADE 20 AMP	DEDICATED (1)	IPU-OR#-B	*# INDICATES OPERATING ROOM NUMBER. (I.E. OR1, OR2, ETC.)
R3	DUPLEX RECEPTACLE - RED HOSPITAL GRADE 20 AMP	DEDICATED (2)	IPU-OR#-B	*# INDICATES OPERATING ROOM NUMBER. (I.E. OR1, OR2, ETC.)
R4	DUPLEX RECEPTACLE - RED HOSPITAL GRADE 20 AMP	DEDICATED (2)	IPU-OR#-B	*# INDICATES OPERATING ROOM NUMBER. (I.E. OR1, OR2, ETC.)
R5	DUPLEX RECEPTACLE - RED HOSPITAL GRADE 20 AMP	DEDICATED (3)	IPU-OR#-B	*# INDICATES OPERATING ROOM NUMBER. (I.E. OR1, OR2, ETC.)
R6	DUPLEX RECEPTACLE - RED HOSPITAL GRADE 20 AMP	DEDICATED (3)	IPU-OR#-B	*# INDICATES OPERATING ROOM NUMBER. (I.E. OR1, OR2, ETC.)
R7	DUPLEX RECEPTACLE - RED HOSPITAL GRADE 20 AMP	DEDICATED (4)	IPU-OR#-B	*# INDICATES OPERATING ROOM NUMBER. (I.E. OR1, OR2, ETC.)
R8	DUPLEX RECEPTACLE - RED HOSPITAL GRADE 20 AMP	DEDICATED (4)	IPU-OR#-B	*# INDICATES OPERATING ROOM NUMBER. (I.E. OR1, OR2, ETC.)
DJ	TELEPHONE/DATA OUTLET 4 JACK		19" EXISTING TELECOM RACK	SEE DWG 3/ES.03 FOR TELEPHONE-DATA OUTLET DETAIL
AV	AUDIO/VIDEO OUTLET			PRIOR ANY INSTALLATION, E.G. TO CONFIRM CONNECTORS TYPE THAT SUPPORT VIDEO, AUDIO, CONTROL, VOICE AND DATA CONNECTORS AS WELL AS VGA LINE DRIVERS, AUDIO BUFFERS, AND TWISTED PAIR TRANSMITTERS AS REQUESTED BY VA AND SKYTRON EQUIPMENT.
MIC	AUDIO/MICROPHONE OUTLET			PRIOR ANY INSTALLATION, E.G. TO CONFIRM PIN NUMBER FOR THE TYPE / MODEL NUMBER OF THE MICROPHONE OUTLET.

SKYTRON to provide a prewired surgical boom. All conduit, wiring, and other electrical materials as well as installation labor for such materials associated with the installation of the SKYTRON surgical light to be provided by Electrical Contractor. All installations of SKYTRON surgical lights should be under the direct supervision of a SKYTRON representative. All wiring to be in accordance with local codes.

GENERAL SURGICAL BOOM NOTES:

- ALL RECEPTACLES IN COLUMNS AND BOOMS SHALL BE PREWIRED TO JUNCTION BOXES LOCATED AT TOP OF COLUMN.
- ALL CIRCUITS SHALL CONTAIN SEPARATE PHASE AND NEUTRAL CONDUCTORS. COMBINING OF THREE CIRCUITS WITH A COMMON NEUTRAL IS NOT PERMITTED.
- ELECTRICAL CONTRACTOR TO ENSURE THE PROPER PANEL AND CIRCUIT NUMBER INTO RECEPTACLE FACEPLATES.
- PROVIDE ADDITIONAL PATHWAYS FOR NURSE CALL AND DATA/TELECOMMUNICATIONS WIRING.
- COLUMNS AND BOOMS ARE FURNISHED BY OWNER FOR INSTALLATION BY CONTRACTOR.
- ALL INTERNAL WIRING SHALL UTILIZE LOW LEAKAGE XHHW-2, 600V INSULATION.




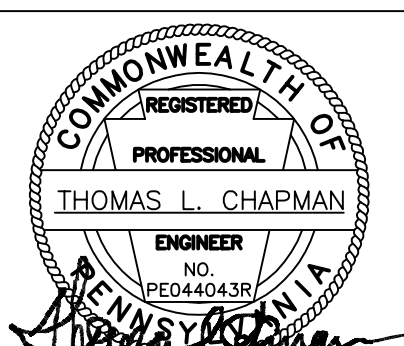

CEILING VIEW

NOTE NUMBER	DESCRIPTION
1	PROVIDE 2#10, 1#10 GND, 3/4" FOR EACH SET OF 120VAC CIRCUITS FROM SURGICAL BOOM TO ISOLATION PANEL IPU-OR#-B
2	PROVIDE (1) 1-1/4" CONDUIT FROM ACCESSIBLE CEILING SPACE ABOVE BOOM TO TELECOM ROOM IN ORDER TO EXTEND COMMUNICATION CABLE ROUTING.
3	PROVIDE (1) 1-1/4" CONDUIT FROM ACCESSIBLE CEILING SPACE ABOVE BOOM FOR AUDIO/VIDEO WIRING ROUTING.
4	PROVIDE (1) 1" CONDUIT FROM ACCESSIBLE CEILING SPACE ABOVE BOOM FOR MONITOR WIRING ROUTING.

REFER TO ARCHITECTURAL DRAWINGS IN ORDER TO IDENTIFY THE EXISTING SURGICAL EQUIPMENT BOOM TO BE RELOCATED IN NEW OPERATING ROOMS AS FOLLOWS:

- * P2 A1.0 PHASING NOTES: REFER TO NOTES FOR SURGICAL EQUIPMENT TO BE REUSED IN NEW OPERATING ROOMS 3B-135 (OR-1), 3B-137 (OR-2), AND 3B-139 (OR-3).
- * P3 A1.0 PHASING NOTES: REFER TO NOTES FOR SURGICAL EQUIPMENT TO BE REUSED IN NEW OPERATING ROOM 3B-140 (OR-4).
- * P4 A1.0 PHASING NOTES: REFER TO NOTES FOR SURGICAL EQUIPMENT TO BE REUSED IN NEW PAIN MANAGEMENT ROOM 3B-166.
- * P4 A1.0 PHASING NOTES: REFER TO NOTES FOR SURGICAL EQUIPMENT TO BE REUSED IN NEW OPERATING ROOM 3B-136 (OR-6).

100% CONSTRUCTION DOCUMENTS FULLY SPRINKLERED

CONSULTANTS:			ARCHITECT / ENGINEERS:			Drawing Title ELECTRICAL O.R. DETAILS AND PAIN MANAGEMENT BOOM		Project Title RENOVATE SURGICAL SERVICE & UPGRADE OPERATING ROOMS		Project Number 581-13-101		Office of Construction and Facilities Management  Department of Veterans Affairs
						Approved: Medical Center Director		Location HUNTINGTON, WV		Building Number 1S		
								Date 10.31.2014		Drawing Number E5.13		
								Checked MC		Drawn DR		
NO. DESCRIPTION DATE			 MILLER-REMICK LLC PROFESSIONAL ENGINEER THOMAS L. CHAPMAN ENGINEER NO. 000440438 EXPIRATION DATE 12/31/2015			 PF&A DESIGN ARCHITECTURE, PLANNING, INTERIORS World Trade Center 101 West Main Street, Suite 7000 Norfolk, VA 23510 Phone: 757-471-6537 Fax: 757-471-6538 www.pfa-architect.com			Dwg. 146 of 178			

one eighth inch = one foot

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Dwa. 147 of 178

COMMONWEALTH OF
REGISTERED
PROFESSIONAL
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FEEDER SCHEDULE	
FEEDER NO	FEEDER AND CONDUIT SIZE
1	4-#1 + 1-#6G IN 1 1/2" C.
2	4-#4/0 + 1-#4G IN 2 1/2" C.
3	4-#4 + 1-#10G IN 1 1/2" C.
4	3-#10 + 1-#10G IN 3/4" C.
5	3-#4 + 1-#6G IN 1" C.
6	4-#1/0 + 1-#6G IN 2" C.
7	4-#6 + 1-#10G IN 1" C.

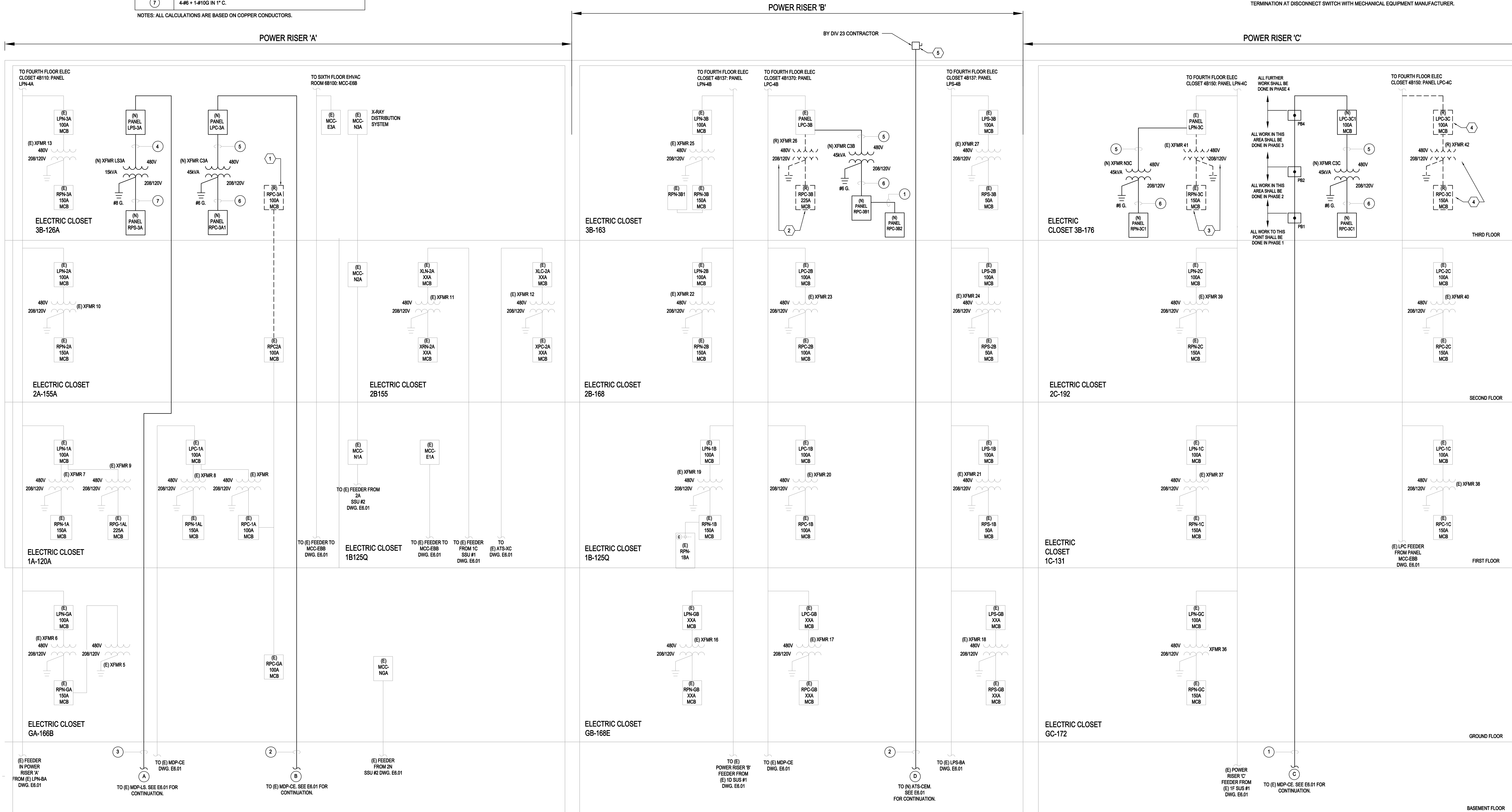
NOTES: ALL CALCULATIONS ARE BASED ON COPPER CONDUCTORS.

GENERAL SHEET NOTES:


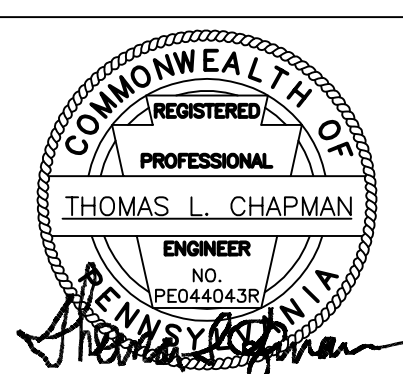


- REFER TO DRAWING E0.01 AND E0.02 FOR NOTES, SYMBOLS & ABBREVIATIONS.
- ALL NEW WORK SHALL BE DONE IN PHASE 1, UNLESS OTHERWISE NOTED.

SHEET KEYNOTES:

- PANEL RPC-3A AND ASSOCIATED FEEDER SHALL BE DEMOLISHED IN PHASE 4. ALL REMAINING CIRCUITS CONNECTED TO PANEL RPC-3A SHALL BE SPICED AND EXTENDED TO NEW PANEL RPC-3A1 IN PHASE 4.
- TRANSFORMER 26, INCLUDING PRIMARY & SECONDARY FEEDERS TO TRANSFORMER, AND PANEL RPC-3B SHALL BE DEMOLISHED IN PHASE 4. ALL REMAINING CIRCUITS CONNECTED TO PANEL RPC-3B SHALL BE SPICED AND EXTENDED TO NEW PANEL RPC-3B1.
- TRANSFORMER 41, INCLUDING PRIMARY & SECONDARY FEEDERS TO TRANSFORMER, AND PANEL RPN-3C SHALL BE DEMOLISHED IN PHASE 4. ALL REMAINING CIRCUITS CONNECTED TO PANEL RPN-3C SHALL BE SPICED AND EXTENDED TO NEW PANEL RPN-3C1.
- PANEL LPC-3C, TRANSFORMER 42, INCLUDING PRIMARY & SECONDARY FEEDERS TO TRANSFORMER, AND PANEL RPC-3C SHALL BE DEMOLISHED IN PHASE 4. ALL REMAINING CIRCUITS CONNECTED TO PANELS LPC-3C AND RPC-3C SHALL BE SPICED AND EXTENDED TO NEW PANELS LPC-3C1 AND RPC-3C1 RESPECTIVELY.
- E.C. TO PROVIDE CONDUIT AND WIRE TO NEW ROOFTOP MECHANICAL EQUIPMENT DISCONNECT SWITCH. DISCONNECT SWITCH TO BE PROVIDED BY DIVISION 23. E.C. TO COORDINATE EXACT LOCATION OF FEEDER TERMINATION AT DISCONNECT SWITCH WITH MECHANICAL EQUIPMENT MANUFACTURER.



100% CONSTRUCTION DOCUMENTS FULLY SPRINKLERED

			CONSULTANTS:			MILLER-REMICK LLC PROFESSIONAL ENGINEER			ARCHITECT / ENGINEERS:			Drawing Title ELECTRICAL SINGLE LINE			Project Title RENOVATE SURGICAL SERVICE & UPGRADE OPERATING ROOMS			Project Number 581-13-101			Office of Construction and Facilities Management  Department of Veterans Affairs					
									 Miller-Remick LLC A/E/P & Structural Engineering A Service Disabled Veteran Owned Small Business 1010 KINGS HIGHWAY SOUTH CHERRY HILL, NEW BRUNSWICK 08034 PHONE: (856)429-4000 FAX: (856)429-9002			 PF&A PFAA DESIGN ARCHITECTURE, PLANNING, INTERIORS World Trade Center 101 West Main Street, Suite 7000 Norfolk, VA 23510 Phone: 757-471-6837 Fax: 757-471-6838 www.pfaa-architect.com			Approved: Medical Center Director			Location HUNTINGTON, WV						Drawing Number E6.02		
															Date 10.31.2014			Checked MC						Drawn MB		
NO. DESCRIPTION DATE																										